1. (Amended)A gas separation system for extracting a first gas fraction and a second gas fraction from a gas mixture including the first and second fractions, the gas separation system comprising:

a stator including a stator valve surface and a plurality of function compartments opening into the stator valve surface;

a rotor rotatably coupled to the stator and including a rotor valve surface in communication with the stator valve surface, a plurality of flow paths for receiving adsorbent material therein, and a plurality of apertures provided in the rotor valve surface and in communication with the flow paths for cyclically exposing the flow paths to the function compartments; and

at least one surge absorber in communication with a plurality of the function compartments opening into the stator valve surface, for reducing pressure variations in the function compartments.

A marked-up version of the amended claim is attached as a separate page, under the heading "MARKED-UP CLAIM".

IN THE SPECIFICATION

Please delete the paragraph at page 5, beginning at line 16, and replace with the following paragraph:

As shown in Fig. 2, the rotor 11 is of annular section, having concentrically to axis 12 an outer cylindrical wall 20 whose external surface is first valve surface 21, and an inner cylindrical wall 22 whose internal surface is second valve surface 23. The rotor has (in the plane of the section defined by arrows 15 and 16 in Fig. 1) a total of "N" radial flow absorber elements 24. An adjacent pair of absorber elements 25 and 26 are separated by partition 27 which is structurally and sealingly joined to outer wall 20 and inner wall 22. Adjacent absorber elements 25 and 26 are angularly spaced relative to axis 12 by an angle of [360^0